

We claim:

1. A knitted fabric, comprising:

(a) two confronting webs, each web being formed by a series of continuous
5 lengths of yarn extending generally parallel to one another and having loops arranged
in walewise and coursewise rows;

(b) one web overlying the other and united at intervals by a stitch of yarn of one
web engaging the other web, the stitches being spaced apart walewise by a plurality of
courses to create channels therebetween the stitches, the channels extending walewise
10 of the webs; and

(c) at least one yarn inserted therein under tension between the two fronting webs
and held in parallel relation to the parallel lengths of yarn, wherein when relaxed the
at least one yarn inserted under tension causes the confronting webs to be spaced apart
within each of the channels.

15 2. The knitted fabric of Claim 1 wherein the two confronting webs are similarly formed.

3. The knitted fabric of Claim 2 wherein each of the two confronting webs is formed of
cotton yarns between 12/1 and 36/1.

20 4. The knitted fabric of Claim 1 wherein the two confronting webs are each formed of
cotton yarns of different sizes.

5. The knitted fabric of Claim 4 wherein the two confronting webs are formed of cotton
25 yarns between 12/1 and 36/1.

6. The knitted fabric of Claim 1 wherein one web is formed substantially of hydrophobic yarns and the other web is formed substantially of hydrophilic yarns.

5 7. The knitted fabric of Claim 1 wherein the at least one yarn inserted under tension is selected from the group consisting of cotton, polyester, nylon, rayon, stainless steel, copper, nichromium, and silver.

8. The knitted fabric of Claim 1 wherein the at least one yarn inserted under tension is
10 between 12/1 and 36/1.

9. The knitted fabric of Claim 1 wherein the at least one yarn inserted under tension is inserted at a tension of between about 4 grams and 6 grams.

15 10. An article of apparel formed from a knitted fabric, the knitted fabric comprising:
(a) two confronting webs, each web being formed by a series of continuous lengths of yarn extending generally parallel to one another and having loops arranged in walewise and coursewise rows;
(b) one web overlying the other and united at intervals by a stitch of yarn of one
20 web engaging the other web, the stitches being spaced apart walewise by a plurality of courses to create channels therebetween the stitches, the channels extending walewise of the webs; and
(c) at least one yarn inserted therein under tension between the two fronting webs and held in parallel relation to the parallel lengths of yarn, wherein when relaxed the

at least one yarn inserted under tension causes the confronting webs to be spaced apart within each of the channels.

11. The article of apparel of Claim 10 wherein the two confronting webs are similarly
5 formed.

12. The article of apparel of Claim 11 wherein each of the two confronting webs are formed of cotton yarns between 12/1 and 36/1.

10 13. The article of apparel of Claim 10 wherein the two confronting webs are each formed of cotton yarns of different sizes.

14. The article of apparel of Claim 13 wherein the two confronting webs are formed of cotton yarns between 12/1 and 36/1.

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15. The article of apparel of Claim 10 wherein one web is formed substantially of hydrophobic yarns and the other web is formed substantially of hydrophilic yarns.

16. The article of apparel of Claim 10 wherein the at least one yarn inserted under tension
20 is selected from the group consisting of cotton, polyester, nylon, rayon, stainless steel, copper, nichromium, and silver.

17. The article of apparel of Claim 10 wherein the at least one yarn inserted under tension is between 12/1 and 36/1.

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18. The article of apparel of Claim 10 wherein the at least one yarn inserted under tension is inserted at a tension of between about 4 grams and 6 grams.

19. A method for forming a bi-ply knitted fabric, comprising:

- 5 (a) knitting two confronting webs, each web being formed by a series of continuous lengths of yarn extending generally parallel to one another and having loops arranged in walewise and coursewise rows;
- (b) uniting the two confronting webs at spaced intervals by stitching a yarn of one web to engage the other web, the stitches being spaced apart walewise by a plurality
10 of courses to create channels therebetween the stitches, the channels extending walewise of the webs; and
- (c) inserting at least one yarn under tension therebetween the two confronting webs so that the at least one yarn is held in parallel relation to the parallel lengths of yarn, wherein when relaxed the at least one yarn inserted under tension causes the
15 confronting webs to be spaced apart within each of the channels.

20. The method of Claim 19 wherein the two confronting webs are similarly formed.

21. The method of Claim 20 wherein each of the two confronting webs are formed of
20 cotton yarns between 12/1 and 36/1.

22. The method of Claim 19 wherein the two confronting webs are each formed of cotton yarns of different sizes.

23. The method of Claim 22 wherein the two confronting webs are formed of cotton yarns between 12/1 and 36/1.

24. The method of Claim 19 wherein one web is formed substantially of hydrophobic
5 yarns and the other web is formed substantially of hydrophilic yarns.

25. The method of Claim 19 wherein the at least one yarn inserted under tension is selected from the group consisting of cotton, polyester, nylon, rayon, stainless steel, copper, nichromium, and silver.

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26. The method of Claim 19 wherein the at least one yarn inserted under tension is between 12/1 and 36/1.

27. The method of Claim 19 wherein the at least one yarn inserted under tension is
15 inserted at a tension of between about 4 grams and 6 grams.

28. A knitted fabric, comprising:

- (a) two confronting webs, each web being formed by a series of continuous
lengths of yarn extending generally parallel to one another and having loops arranged
20 in walewise and coursewise rows;
- (b) one web overlying the other and united at intervals by a tuck stitch of yarn of one web engaging the other web, the stitches being spaced apart walewise by a plurality of courses to create channels therebetween the tuck stitches, the channels extending walewise of the webs; and

(c) at least one yarn of wire inserted therein between the two fronting webs and held generally parallel to the coursewise rows by said tuck stitches.

29 The knitted fabric of Claim 28 wherein the two confronting webs are similarly
5 formed.

30 The knitted fabric of Claim 29 wherein each of the two confronting webs are formed of cotton yarns between 12/1 and 36/1.

10 31 The knitted fabric of Claim 28 wherein the two confronting webs are each formed of cotton yarns of different sizes.

32. The knitted fabric of Claim 31 wherein the two confronting webs are formed of cotton yarns between 12/1 and 36/1.

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33. The knitted fabric of Claim 28 wherein one web is formed substantially of hydrophobic yarns and the other web is formed substantially of hydrophilic yarns.

34. The knitted fabric of Claim 28 wherein the at least one yarn of wire is inserted under
20 tension.

35. The knitted fabric of Claim 34 wherein the at least one yarn of wire inserted under tension is selected from the group consisting of stainless steel, copper, nichromium, silver, and combinations thereof.

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36. The knitted fabric of Claim 34 wherein the at least one yarn of wire inserted under tension is between 27 AWG and 33 AWG.

37. The knitted fabric of Claim 34 wherein the at least one yarn inserted under tension is
5 inserted at a tension of between about 4 grams and 6 grams.

38. An article of apparel formed from a knitted fabric, the knitted fabric comprising:

(a) two confronting webs, each web being formed by a series of continuous
lengths of yarn extending generally parallel to one another and having loops arranged
10 in walewise and coursewise rows;

(b) one web overlying the other and united at intervals by a tuck stitch of yarn of
one web engaging the other web, the tuck stitches being spaced apart walewise by a
plurality of courses to create channels therebetween the stitches, the channels
extending walewise of the webs; and

15 (c) at least one yarn of wire inserted therein between the two fronting webs and
held generally parallel to the coursewise rows by said tuck stitches.

39. The article of apparel of Claim 38 wherein the two confronting webs are similarly
formed.

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40. The article of apparel of Claim 39 wherein each of the two confronting webs are
formed of cotton yarns between 12/1 and 36/1.

41. The article of apparel of Claim 38 wherein the two confronting webs are each formed
25 of cotton yarns of different sizes.

42. The article of apparel of Claim 41 wherein the two confronting webs are formed of cotton yarns between 12/1 and 36/1.

5 43. The article of apparel of Claim 38 wherein one web is formed substantially of hydrophobic yarns and the other web is formed substantially of hydrophilic yarns.

44. The article of apparel of Claim 38 wherein the at least one yarn of wire is inserted under tension.

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45. The article of apparel of Claim 44 wherein the at least one yarn inserted under tension is selected from the group consisting of stainless steel, copper, nichromium, silver, and combinations thereof.

15 46. The article of apparel of Claim 44 wherein the at least one yarn of wire inserted under tension is between 27 AWG and 33 AWG.

47. The article of apparel of Claim 44 wherein the at least one yarn of wire inserted under tension is inserted at a tension of between about 4 grams and 6 grams .

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48. The article of apparel of Claim 38 further including a transmitter connectable to the at least one yarn of conductive material.

49. The article of apparel of Claim 48 further including a power source for providing
25 electric power to the transmitter.

50. The article of apparel of Claim 38 further including a receiver connectable to the at least one yarn of conductive material.

5 51. The article of apparel of Claim 50 further including a power source for providing electric power to the receiver.

52. The article of apparel of Claim 38 further including a resistance heating device connectable to the at least one yarn of conductive material.

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53. The article of apparel of Claim 52 further including a power source for providing electric power to the resistance heating device.

54. The article of apparel of Claim 38 further including a microcomputer device
15 connectable to the at least one yarn of conductive material.

55. The article of apparel of Claim 54 further including a power source for providing electric power to the microcomputer device.